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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/822,706 | 04/13/2004 | Tomotoshi Senoh | 086142-0629 | 2928 |
| 22428 | 7590 | 04/26/2006 | EXAMINER | |
| FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007 | | | KAYES, SEAN PHILLIP | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2841 | |

DATE MAILED: 04/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/822,706 | Applicant(s) SENOH ET AL. | |
| | Examiner Sean Kayes | Art Unit 2841 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 7(a) and 7(b) should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings were received on 3/20/2006. These drawings are acceptable, except for the reason mentioned above.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki (US 6323444.)

Art Unit: 2841

3. With respect to claim 1, Aoki discloses a device for measuring a weight of a seat, including the weight of an occupant sitting on the seat, the device comprising: a resilient member supported by at least one support point (23, figure 1: The structure is not permanently deformed when a load is placed on it, therefor the structure is resilient); a load sensor supported by a sensor support and in communication with the resilient member and positioned to receive the weight of the seat (54 figure 1 and column 5 lines 51-52). Aoki does not explicitly disclose wherein the device is configured so that the weight of the seat is applied between the at least one support point and the sensor point.

At the time of the invention it would have been obvious to one skilled in the art to switch the position at which the weight of the seat acts, from one pin to the other. Such a change would be a mere rearrangement of parts.

The suggestion or motivation for doing so would be to change to apply a different force at the sensor position. This would allow the invention to adjust the force applied at the sensor position to be within an ideal range.

4. With respect to claim 2, Aoki discloses the device of claim 1 (see 103 rejection above), wherein the resilient member is a single acting part (item 23 figure 4, the resilient member is one piece and is acting as one part.)

5. With respect to claim 3, Aoki discloses the device of claim 1 (see 103 rejection above), wherein the resilient member has two acting parts (23 figure 4, the resilient member has two end pieces, each of which is an acting member.)

Art Unit: 2841

6. With respect to claim 4, Aoki discloses the device of claim 1 (see 103 rejection above), further comprising a pin bracket adapted to be in communication with the seat and the resilient member (25 figure 4.)

7. With respect to claim 5, Aoki discloses the device of claim 4 (see 103 rejection above), wherein the pin bracket is rotatably supported by a base pin (figure 4 and column 2 lines 25-30.)

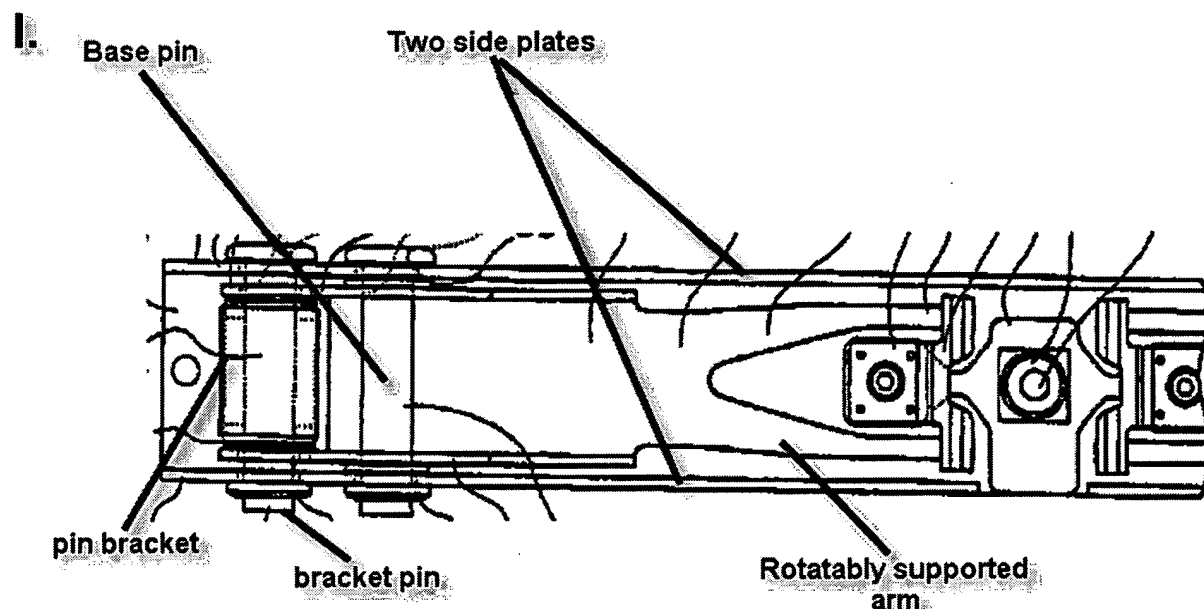
8. With respect to claim 6, Aoki discloses the device of claim 5 (see 103 rejection above), wherein the pin bracket transmits the seat weight to a bracket pin (figures 1, 4, and column 7 lines 28-30, the weight is transmitted to the arm through the bracket pin, by way of the pin bracket.)

9. With respect to claim 7, Aoki discloses a device for measuring seat weight including the weight of an occupant sitting on the seat, the device comprising: a base having two side plates (see picture I. provided below); an arm rotatably supported by and interdisposed between the side plates of the base via a base pin (see picture I. provided below, and item 31 figure 4); a pin bracket in communication with the arm via a bracket pin and further adapted to be in communication with the seat (see picture below, and items 25 and 27 figure 4); a load sensor in communication with the arm; and wherein the pin bracket is located between the base pin and the load sensor. Aoki does not explicitly disclose wherein the device is configured so that the weight of the seat is applied between the at least one support point and the sensor point.

Art Unit: 2841

At the time of the invention it would have been obvious to one skilled in the art to switch the position at which the weight of the seat acts, from one pin to the other. Such a change would be a mere rearrangement of parts.

The suggestion or motivation for doing so would be to change to apply a different force at the sensor position. This would allow the invention to adjust the force applied at the sensor position to be within an ideal range.



10. With respect to claim 8, Aoki discloses the device of claim 7 (see 103 rejection above), wherein the arm comprises a single acting part (item 23 figure 4, the resilient member is one piece and is acting as one part.)

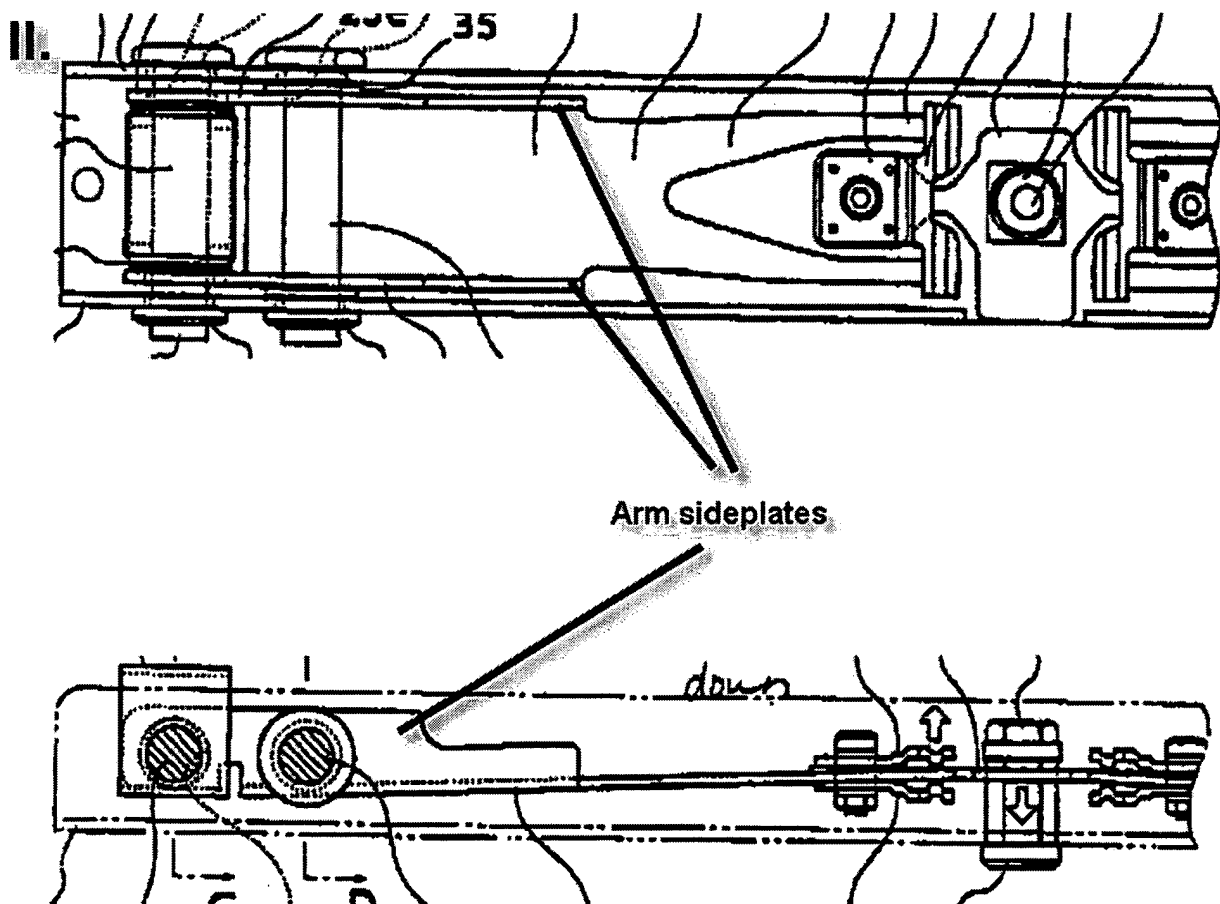
11. With respect to claim 9, Aoki discloses the device of claim 7 (see 103 rejection above), wherein the arm comprises two acting parts (23 figure 4, the resilient member has two end pieces, each of which is an acting member.)

Art Unit: 2841

12. With respect to claim 10, Aoki discloses the device of claim 7 (see 103 rejection above), wherein the pin bracket is rotatably supported by the base pin ((figure 4 and column 2 lines 25-30 and see picture I. provided above.)

13. With respect to claim 11, Aoki discloses the device of claim 10 (see 103 rejection above), wherein the pin bracket transmits the seat weight to the bracket pin (figures 1, 4, and column 7 lines 28-30, the weight is transmitted to the arm through the bracket pin, by way of the pin bracket.)

14. With respect to claim 12, Aoki discloses the device of claim 7 (see 103 rejection above), wherein the arm comprises two arm sideplates (see picture II. provided below.)



Art Unit: 2841

15. With respect to claim 13, Aoki discloses the device of claim 12 (see 103 rejection above.) Aoki does not explicitly disclose a spring leaf interdisposed between the two arm side plates.

At the time of the invention it would have been obvious to one skilled in the art to replace the springs in Aoki's invention with leaf springs.

The suggestion motivation for doing so would be to increase longevity of the springs. Leaf springs are less subject to deformation due to continuous load as are traditional springs.

Response to Arguments

3. Applicant's arguments filed 3/16/2006 have been fully considered but they are not persuasive.

4. In response to the applicant's first argument: Applicant asserts that "the proposed rearrangement of Aoki would change the operation of the device since the rearrangement would alter the bending motion of the resilient arm and the weight measurement is based on this bending motion of the arm. This is not a non-trivial change that has no bearing on the operation of the sensor but changes the fundamental mechanism in which the sensing is based."

Contrary to applicant's assertion, the weight measurement is not based on the bending motion of the resilient member, but rather the sensor plate. It would have been obvious to one skilled in the art to adjust the length of an arm, the distance between the pins,

Art Unit: 2841

and which pin the downward force acts on in order to fit the invention for a given seat or in a given space. Applicant's argument is not persuasive as it fails to show how the suggested change fundamentally changes the mechanism in which the sensing is based.

5. In response to applicant's second argument: Applicant asserts that "there is no reference to the prior art for motivation or reason to modify the device of Aoki" and that "it is inaccurate since the movement of the application of force to a point between the support point and the sensor point would alter the entire bending motion of the resilient arm and not merely change the amount of force applied at the sensor point."

There are many types of seats in many types of cars, which would benefit from Aoki's invention. It would have been obvious to one skilled in the art to adjust the lengths of the parts and the distances between the parts in order to fit the invention to any number of different seat sizes. Given a narrow seat space it would have been obvious to one skilled in the art to switch the position of the pins, such that the weight force acting on the sensor plate is reversed, and adjusting the strain gauges to an appropriate position to compensate, i.e. turning the plate upside down so that the bending action of the plate would be substantially unaltered.

Applicant's argument is unpersuasive because the invention disclosed by Aoki is clearly intended to be modified to fit more than one style of car as is made evident by figures 9-13.) Rearranging the parts as originally stated would have been obvious to one skilled in the art and the motivation to do so is provided by Aoki by the inclusion of figures 9-13, which show modifying the structure to fit different seat types.

6. In response to applicant's third argument: Applicant asserts that the dependent claims 2-6 should be allowable for the aforementioned reasons. Since the arguments for the allowability of claim 1 are not persuasive so to is the argument for claims 2-6.

7. In response to the applicant's fourth argument: Applicant asserts that "the movement of the pin bracket changes the operation of the device." This is false for the above mentioned reasons. The weight sensing operation does not depend on the bending motion or the resilient arm as per the applicant's assertion, rather it depends on the sensor bar.

8. In response to the applicant's fifth argument: Applicant repeats the earlier assertion that "there has been no motivation or suggestion from the prior art to move the pin bracket."

There are many types of seats in many types of cars, which would benefit from Aoki's invention. It would have been obvious to one skilled in the art to adjust the lengths of the parts and the distances between the parts in order to fit the invention to any number of different seat sizes. Given a narrow seat space it would have been obvious to one skilled in the art to switch the position of the pins, such that the weight force acting on the sensor plate is reversed, and adjusting the strain gauges to an appropriate position to compensate, i.e. turning the plate upside down so that the bending action of the plate would be substantially unaltered.

Applicant's argument is unpersuasive because the invention disclosed by Aoki is clearly intended to be modified to fit more than one style of car as is made evident by figures 9-13.) Rearranging the parts as originally stated would have been obvious to one skilled in the art and the motivation to do so is provided by Aoki by the inclusion of figures 9-13, which show modifying the structure to fit different seat types.

9. In response to applicant's sixth argument: Applicant asserts that the dependent claims 8-13 should be allowable for the aforementioned reasons. Since the arguments for the allowability of claim 7 are not persuasive so too is the argument for claims 8-13.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

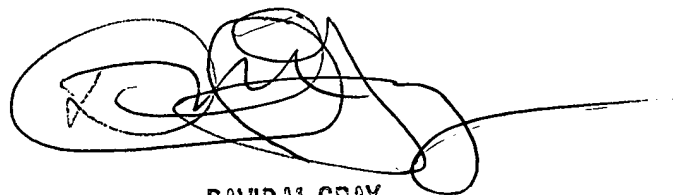
Art Unit: 2841

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Kayes whose telephone number is (571) 272-8931. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on (571)272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SK
4/18/2006

A handwritten signature in black ink, appearing to be 'D. Gray', with a long horizontal line extending to the right.

DAVID M. GRAY
PRIMARY EXAMINER